

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P#

Luminaire Tested: **FLDSQ4C30D010 FEU4C309050 F4LC-SQ-H**

Issue Date: 12/13/2022

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-08  
 Report Number: P#  
 Test Lab: INNOVATION CENTER  
 Issue Date: 12/13/2022  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: FAIL-SAFE  
 Catalog Number: FLDSQ4C30D010 FEU4C309050 F4LC-SQ-H  
 Description: 4 INCH 3000 LUMEN FAIL-SAFE LED DOWNLIGHT WITH, 5000K, 90CRI LEDS AND F4LC-SQ TRIM WITH H FINISH  
 Light Source: -  
 Ballast/Driver: -

**Summary**

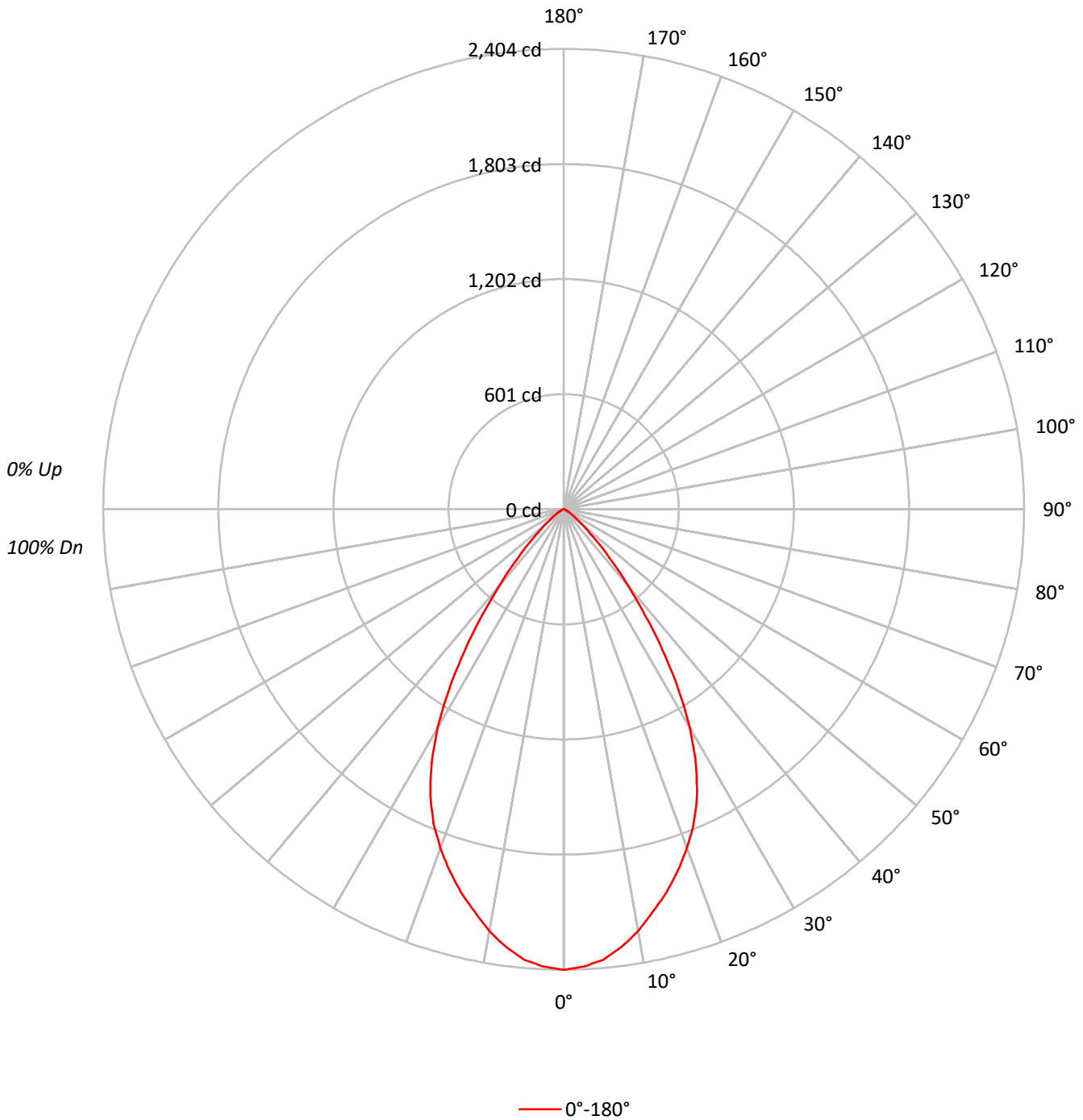
Lumens per Lamp: N/A  
 Luminaire Lumens: 2425.0 lumens  
 Efficiency: N/A  
 Efficacy: 76.7 lumens/watt  
 Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93  
 Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
 CIE Type: Direct

Input Watts (W): 31.6  
 Input Voltage (V):  
 Input Current (Ain): NR  
 Voltage Rise (V): NR  
 Power Factor: NR  
 Total Harmonic Distortion (THDi): NR  
 Frequency (hertz): 60  
 Stabilization Time: NR  
 Operation Time: NR  
 Ambient Temperature (°C): NR  
 Test Distance: 25 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	GONIO 1 IN0055	4/22/2021	10/22/2021
Power Meter	XITRON 2801 IN0197	12/1/2020	12/1/2021
AC Power Source	CHROMA 61505 IN0196	12/1/2020	12/1/2021
DC Power Supply	AGILENT E3634A IN0198	11/30/2020	11/30/2021
Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021

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### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20			
RC	80				70				50				30				10	0		
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	113	110	108	105	111	108	106	104	104	102	100		100	99	97		97	96	95	93
2	107	102	98	94	105	100	96	93	97	94	91		94	91	89		91	89	87	85
3	101	94	89	85	99	93	88	84	90	86	83		88	84	82		86	83	80	79
4	96	88	82	77	94	86	81	77	84	80	76		82	78	75		80	77	74	73
5	90	82	75	71	89	81	75	70	79	74	70		77	73	69		75	72	69	67
6	86	76	70	65	84	75	69	65	74	68	64		72	68	64		71	67	64	62
7	81	71	65	60	80	70	64	60	69	64	60		68	63	59		67	62	59	58
8	77	67	60	56	75	66	60	56	65	59	56		64	59	55		63	58	55	54
9	73	63	56	52	72	62	56	52	61	56	52		60	55	52		59	55	52	50
10	69	59	53	49	68	59	53	49	58	52	49		57	52	48		56	52	48	47

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	232008
5°	228642
10°	219087
15°	206928
20°	193154
25°	175346
30°	146389
35°	106059
40°	66392
45°	37948
50°	19785
55°	11086
60°	7063
65°	4178
70°	3103
75°	1379
80°	2056
85°	0

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	221.3	9.1
10°-20°	580.5	23.9
20°-30°	746.0	30.8
30°-40°	561.3	23.1
40°-50°	225.4	9.3
50°-60°	64.1	2.6
60°-70°	20.3	0.8
70°-80°	5.8	0.2
80°-90°	0.5	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1547.7	63.8
0°-40°	2109.0	87.0
0°-60°	2398.4	98.9
0°-90°	2425.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2425.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2404	
5°	2361	221
15°	2072	580
25°	1647	746
35°	900	561
45°	278	225
55°	66	64
65°	18	20
75°	4	6
85°	0	1
90°	0	

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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	2404.5
2.5°	2389.9
5°	2360.6
7.5°	2305.7
10°	2236.1
12.5°	2152.1
15°	2071.5
17.5°	1980.0
20°	1881.1
22.5°	1775.1
25°	1647.0
27.5°	1493.2
30°	1313.9
32.5°	1112.6
35°	900.4
37.5°	702.7
40°	527.1
42.5°	387.9
45°	278.1
47.5°	190.4
50°	131.8
52.5°	91.5
55°	65.9
57.5°	47.6
60°	36.6
62.5°	25.6
65°	18.3
67.5°	14.6
70°	11.0
72.5°	7.3
75°	3.7
77.5°	3.7
80°	3.7
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0

(END OF REPORT)